75	THELI-
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SEQUENCE LISTING

<110> Hayward, Nicholas K. Weber, Gunther Grimmond, Sean Nordenskjold, Magnus Larsson, Catharina



TECH CENTER 1800/5800

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<120> A NOVEL GROWTH FACTOR AND A GENETIC SEQUENCE ENCODING SAME

<130> Dav. Col. Cave

<140> 09/349,954

<141> 1999-07-08

<150> 08/765,588

<151> 1996-02-22

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<170> PatentIn Ver. 2.1

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Ala Leu Leu Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro
15 20 \ 25

atg gca gaa gga ggg cag aat cat cac gaa gtg gtg aag ttc atg 148

Met Ala Glu Gly Gly Gln Asn His His Glu Val Val Lys Phe Met

gat gtc tat cag cgc agc tac tgc cat cca atc gag acc ctg gtg gac 196

Asp Val Tyr Gln Arg Ser Tyr Cys His Pro The Glu Thr Leu Val Asp 50 55 60

atc ttc cag gag tac cct gat gag atc gag tac atc ttc aag cca tcc 244

Ile Phe Gln Glu Tyr Pro Asp Glu Ile Glu Tyn Ile Phe Lys Pro Ser

B'

				65					70					75		
tgt	gtg	ccc	ctg	atg	cga	tgc	ggg	ggc	tgc	tgc	aat	gac	gag	ggc	ctg	292
Cys	Val	Pro	Leu 80	Met	Arg	Cys	Gly	Gly 85	Cys	Cys	Asn	Asp	Glu 90	Gly	Leu	
gag	tgt	gtg	ccc	act	gag	gag	tcc	aac	atc	acc	atg	cag	att	atg	cgg	340
Glu	Cys	Val 95	Pro	Thr	Glu	Glu	Ser 100	Asn	Ile	Thr	Met	Gln 105	Ile	Met	Arg	
atc	aaa	cct	cac	caa	ggc	cag	cac	ata	gga	gag	atg	agc	ttc	cta	cag	388
Ile	Lys 110	Pro	His	Gln	Gly	Gln 115	His	Ile	Gly	Glu	Met 120	Ser	Phe	Leu	Gln	
cac	aac	aaa	tgt	gaa	tgc	aga	cca	aag	aaa	gat	aga	gca	aga	caa	gaa	436
His 125	Asn	Lys	Cys	Glu	Cys 130	Arg	Pro	Lys	Lys	Asp 135	Arg	Ala	Arg	Gln	Glu 140	
aat	CCC	tgt	ggg	cct	tgc	tca	gag	cgg	aga	aag	cat	ttg	ttt	gta	caa	484
Asn	Pro	Cys	Gly	Pro 145	Cys	Ser	Glu	Arg	Arg 150	Lys	His	Leu	Phe	Val 155	Gln	
gat	ccg	cag	acg	tgt	aaa	tgt	tcc	tgc	aaa	aac	aca	gac	tcg	cgt	tgc	532
Asp	Pro	Gln	Thr 160	Cys	Lys	Cys	Ser	Cys 165	Lys	Asn	Thr	Asp	Ser 170	Arg	Cys	
aag	gcg	agg	cag	ctt	gag	tta	aac	gaa	cgt	act	tgc	aga	tgt	gac	aag	580
Lys	Ala	Arg 175	Gln	Leu	Glu	Leu	Asn 180	Glu	Arg	Thr	Cys	Arg 185	Cys	Asp	Lys	
ccg	agg	cgg	tgag	ccgo	ggc a	ıggaç	gaag	gg ag	gaata	ccct	ago	gttt	cgg			629
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Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln 35 40 45

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu 50 55 60

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu 65 70 75 80

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro 85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His 100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys 115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Asn Pro Cys Gly 130 135 140

Pro Cys Ser Glu Arg Arg Lys His Leu Phe Val Gln Asp Pro Gln Thr 145 150 155 160

Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys Lys Ala Arg Gln 165 170 175

Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys Pro Arg Arg 180 185 190

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cag	CCC	cgg	gag	gtg	gtg	gtg	CCC	ttg	act	gtg	gag	ctc	atg	ggc	acc	191
Gln	Pro	Arg 50	Glu	Val	Val	Val	Pro 55	Leu	Thr	Val	Glu	Leu 60	Met	Gly	Thr	
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Val	Ala 65	Lys	Gln	Leu	Val	Pro 70	Ser	Cys	Val	Thr	Val 75	Gln	Arg	Cys	Gly	
ggc	tgc	tgc	cct	gac	gat	ggc	ctg	gag	tgt	gtg	CCC	act	ggg	cag	cac	287
Gly 80	Cys	Cys	Pro	Asp	Asp 85	Gly	Leu	Glu	Cys	Val 90	Pro	Thr	Gly	Gln	His 95	
caa	gtc	cgg	atg	cag	atc	ctc	atg	atc	cgg	tac	ccg	agc	agt	cag	ctg	335
Gln	Val	Arg	Met	Gln 100	Ile	Leu	Met	Ile	Arg 105	Tyr	Pro	Ser	Ser	Gln 110	Leu	
aaa	gag	atg	tcc	ctg	gaa	gaa	cac	agc	cag	tgt	gaa	tgc	aga	cct	aaa	383
Gly	Glu	Met	Ser 115	Leu	Glu	Glu	His	Ser 120	Gln	Cys	Glu	Cys	Arg 125	Pro	Lys	
aaa	aag	gac	agt	gct	gtg	aag	cca	gac	agg	gct	gcc	act	ccc	cac	cac	431
Lys	Lys	Asp 130	Ser	Ala	Val	Lys	Pro 135	Asp	Arg	Ala	Ala	Thr 140	Pro	His	His	
cgt	CCC	cag	CCC	cgt	tct	gtt	ccg	ggc	tgg	gac	tct	gcc	CCC	gga	gca	479
Arg	Pro 145	Gln	Pro	Arg	Ser	Val 150	Pro	Gly	Trp	Asp	Ser 155	Ala	Pro	Gly	Ala	
ccc	tcc	cca	gct	gac	atc	acc	cat	ccc	act	cca	gcc	cca	ggc	CCC	tct	527
Pro 160	Ser	Pro	Ala	Asp	Ile 165	Thr	His	Pro	Thr	Pro 170	Ala	Pro	Gly	Pro	Ser 175	
gcc	cac	gct	gca	ccc	agc	acc	acc	agc	gcc	ctg	acc	ccc	gga	cct	gcc	575
Ala	His	Ala	Ala	Pro 180	Ser	Thr	Thr	Ser	Ala 185	Leu	Thr	Pro	Gly	Pro 190	Ala	
gct	gcc	gct	gcc	gac	gcc	gca	gct	tcc	tcc	gtt	gcc	aag	ggc	aaa	gct	623
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<213> Nucleotide Sequence of SOM175

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Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
35 40 45

Pro Arg Glu Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val 50 55 60

Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly 65 70 75 80

Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
85 90 95

Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
100 105 110

Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys 115 120 125

Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His Arg 130 135 140

Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala Pro

105

Gln Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu

ggg gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa 383 Gly Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys 115 120 125 aaa aag gac agt gct gtg aag cca gat agc ccc agg ccc ctc tgc cca 431 Lys Lys Asp Ser Ala Val Lys Pro Asp Ser Pro Arg Pro Leu Cys Pro cgc tgc acc cag cac cac cag cgc cct gac ccc cgg acc tgc cgc tgc 479 Arg Cys Thr Gln His His Gln Arg Pro Asp Pro Arg Thr Cys Arg Cys 145 cgc tgc cga cgc cgc agc ttc ctc cgt tgc caa ggg cgg ggc tta gag 527 Arg Cys Arg Arg Arg Ser Phe Leu Arg Cys Gln Gly Arg Gly Leu Glu 160 165 170 175 ctc aac cca gac acc tgc agg tgc cgg aag ctg cga agg tgacacatgg 576 Leu Asn Pro Asp Thr Cys Arg Cys Arg Lys Leu Arg Arg cttttcagac tcagcagggt gacttgcctc agaggctata tcccagtggg ggaacaaagg 636 ggagcctggt aaaaaacagc caagccccca agacctcagc ccaggcagaa gctgctctag 696 gacctgggcc tctcagaggg ctcttctgcc atcccttgtc tccctgaggc catcatcaaa 756 caggacagag ttggaagagg agactgggag gcagcaagag gggtcacata ccagctcagg 816 ggagaatgga gtactgtctc agtttctaac cactctgtgc aagtaagcat cttacaactg 876 gctcttcctc ccctcactaa gaagacccaa acctctgcat aatgggattt gggctttggt 936 acaagaactg tgacccccaa ccctgataaa agagatggaa ggaaaaaaaa aaaaaaa 993

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cag agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc

30

Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys 35 191 cag ccc cgg gag gtg gtg ccc ttg act gtg gag ctc atg ggc acc Gln Pro Arg Glu Val Val Pro Leu Thr Val Glu Leu Met Gly Thr 239 gtg gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt Val Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly 287 ggc tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac Gly Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His 335 caa gtc cgg atg cag atc ctc atg atc cgg tac ccg agc agt cag ctg Gln Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu ggg gag atg tcc ctg gaa gaa cac agc cag tgt gaa tgc aga cct aaa 383 Gly Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys 115 120 125 aaa aag gac agt gct gtg aag cca gat agg tgc cgg aag ctg cga agg 431 Lys Lys Asp Ser Ala Val Lys Pro Asp Arg Cys Arg Lys Leu Arg Arg 130 tgacacatgg cttttcagac tcagcagggt gacttgcctc agaggctata tcccagtggg 491 ggaacaaagg ggagcctggt aaaaaacagc caagccccca agacctcagc ccaggcagaa 551 gctgctctag gacctgggcc tctcagaggg ctcttctgcc atcccttgtc tccctgaggc 611 catcatcaaa caggacagag ttggaagagg agactgggag gcagcaagag gggtcacata 671 ccagctcagg ggagaatgga gtactgtctc agtttctaac cactctgtgc aagtaagcat 731 cttacaactg gctcttcctc ccctcactaa gaagacccaa acctctgcat aatgggattt 791 gggctttggt acaagaactg tgacccccaa ccctgataaa agagatggaa ggaaaaaaaa 851 858 aaaaaaa

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Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
Pro Arg Glu Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
            100
                                105
                                                     110
Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys Lys
                            120
Lys Asp Ser Ala Val Lys Pro Asp Arg Cys Arg Lys Leu Arg Arg
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                                            140
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   Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln
                                                                   95
ctg gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct ggc cac
Leu Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His
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cag agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc 143 Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys 35 40 45 191 cag ccc cgg gag gtg gtg gtg ccc ttg act gtg gag ctc atg ggc acc Gln Pro Arg Glu Val Val Pro Leu Thr Val Glu Leu Met Gly Thr gtg gcc aaa cag ctg gtg ccc agc tgc gtg act gtg cag cgc tgt ggt 239 Val Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly ggc tgc tgc cct gac gat ggc ctg gag tgt gtg ccc act ggg cag cac 287 Gly Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His 80 90 335 caa gtc cgg atg cag acc taaaaaaaag gacagtgctg tgaagccaga Gln Val Arg Met Gln Thr 100 cagggetgee actececace accgtececa geoecgttet gtteeggget gggaetetge 395 ccccggagca ccctccccag ctgacatcac ccatcccact ccagccccag gcccctctgc 455 ccacgctgca cccagcacca ccagcgccct gacccccgga cctgccgctg ccgctgccga 515 egeegeaget teeteegttg ceaagggegg ggettagage teaacceaga cacetgeagg 575 tgccggaagc tgcgaaggtg acacatggct tttcagactc agcagggtga cttgcctcag 635 aggetatate ceagtgggga acaaagagga geetggtaaa aaacageeaa geeecaaga 695 cctcagccca ggcagaagct gctctaggac ctgggcctct cagagggctc ttctgccatc 755 ccttgtctcc ctgaggccat catcaaacag gacagagttg gaagaggaga ctgggaggca 815 gcaagagggg tcacatacca gctcagggga gaatggagta ctgtctcagt ttctaaccac 875



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Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His Gln
Val Arg Met Gln Thr
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                                                  Met Ser Pro Leu
                                                    1
                                                                  225
ctg cgt cgc ctg ctt gtt gca ctg ctg cag ctg gct cgc acc cag
Leu Arg Arg Leu Leu Val Ala Leu Leu Gln Leu Ala Arg Thr Gln
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